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ABSTRACT

Idioglossia is a private communication system, most commonly occurring in twins. It also occurs between singletons and between other siblings of multiple births. These communication systems range from manual gestures to a fully developed vocal language with its own grammar. The literature of idioglossia is scanty and largely anecdotal. Much of the literature implies that idioglossia is a rare pathology. However, none of the studies on language retardation in twins has tested the relationship between the use of "twin" language and continuing academic retardation. Idioglossia also may not be so rare. Some studies report that 40 to 50 percent of all twins use "secret language." In the author's informal survey, idioglossia was found in six out of seven sets of twins plus one set of singleton siblings. Hints about the circumstances which lead to the development of idioglossia can be discovered from the Kennedy twins, who have persisted in using idioglossia to the near exlusion of other languages. The development of idioglossia also may have implications for issues in linguistics (i.e., the innateness of language and Sapir-Whorf theory). There is an astounding gap between folk knowledge of the phenomena and scholarly research which implies that much more research is needed. (CB)

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IDIOGLOSSIA: A REVIEW AND SOME OBSERVATIONS

Abstract: Idioglossia is a private communication system, most commonly occurring in twins. Little has been written about idioglossia except as a pathological form of behavior which inhibits proper language development; and the circumstances under which idioglossia may develop is thusfar a matter of scholarly speculation. The literature of idioglossia is scanty, largely anecdotal, and implies rare pathology. In an informal survey, idioglossia was found in six out of seven sets of twins plus one set of singleton siblings. The author comments on the gap between the folk knowledge of this situation and scholarly research.

Introduction

For at least the last fifty years it has been a cliche of child development studies that twins may be expected to be somewhat retarded in language acquisition. Tests of this assumption, however, have reached differing conclusions regarding the severity of such retardation. Idioglossia, or twin speech, is a phenomenom that may develop between siblings who are very near one another in age. It is a private communication system, most commonly occuring in twins between the ages of one and two; but idioglossia is not unknown between other siblings of multiple birth and between singletons [Anastasi 1958, Hale 1887, Howard 1946] Scheinfeld describes idioglossia as "consisting of twisted

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or made-up words and peculiar sounds, gestures, expressions, and so on, intelligible just to themselves." [Scheinfeld 1967]

Communication systems between siblings has been found in degrees ranging from manual gestures [Anastasi 1958, Martin 1971] to an apparently fully developed vocal language with its own grammar. Very little has been written about it. Idioglossia has been largely ignored, and when not ignored, reviled. Writers who do mention it briefly in works on child language acquisition or twin psychology generally treat it as a pathological form of behavior which inhibits proper language development [Anastasi 1958, E. Davis 1937, Douglas 1978, Eisenson 1963, Howard 1946, Scheinfeld 1967, Van Riper 1950].

Literature Review

Day's 1932 study is still widely cited and over the years seems to have assumed the patina of classic wisdom. Her tests of groups of twins, organized by father's occupation, revealed that twins were much less verbal than singletons of like age. Twins spoke in shorter, less complex sentences than did comparable singletons, and persisted in using more of what Day calls "infantile habits of language." Her study reached the grim conclusion that the speech of five-year-old twins is equivalent to that of singletons aged 30 to 36 months [Day 1932].

Other studies moderated Day's findings. Howard's 1946 research with preschool triplets found that they were about a year behind singletons in all forms of language development, but that they were catching up rapidly by school age. Wilson [1974] found that twins, especially monozygotic twins, were initially slower than singletons in mental development, but that they were the equivalent of singletons by age six years. Dales [1969] concluded that twins reached parity with singles before three years, while Savic [1979] examined the

habit of preschool twins to complete one another's utterances.

In spite of the different conclusions reached by researchers into twin development, language retardation of twins became a commonplace, accepted by both scholars and the popular press. Despite the lack of empirical data, idioglossia is often named as the culprit responsible for the apparent slowness of twins to develop ability in standard language [Anastasi 1958, Douglas 1978, Eisenson 1963, Van Riper 1950]. By contrast, Mittler found the incidence of idioglossia to have negligible effect on the scores of four-year-old twins to whom he administered the Illinois Test of Psycholinguistic Abilities [Mittler 1970].

A recent survey by Matheny [1972] criticized the literature dealing with language development of twins as impressionistic and cited several studies relating poor language development to later birth order. Matheny tested 140 pairs of twins aged three to eight years, plus 94 singleton siblings of twins. He found both types of subjects to be retarded in language development and postulated socio-economic factors as a causitive [Matheny 1972].

In 1977, Wilson evaluated the "presumed disadvantage for twins in verbal ability...in reference to matched siblings from the same family." He found that pairs of non-twin siblings coordinated very closely in mental development with dizygotic twin sets. Anastasi gives both sides of the issue as fact, remarking on the one hand that it is a common observation that twins show retarded language development; while on the other hand she cites studies showing that only children

> are definitely superior to children-with-siblings in every phase of linguistic skill. In fact, singletons-with-siblings resemble twins in many phases of their language development more than they resemble only children. [Anastasi 1958]

There is some indication that the length of the inter-sib interval affects

scores on intelligence tests, with a longer period of time between siblings tending to result in higher scores [Anastasi 1958].

Kadau's limited study [1974] involved 66 sets of twins whose mothers were members of the Orange County, California, Mothers of Twins Club. When she tested these preschool subjects for language ability, comprehension, and communication skills, her conclusions contrasted sharply with the literature: "In this study twin subjects scored higher than the normative population." Her survey included questions about the use of private communication systems between twins, but she neither revealed the data collected nor related the presence or absence of idioglossia to the scores on her battery of tests.

Although Day's 1932 study was prompted by Hale's 1887 anecdotal account of several instances of idioglossia, Day passed over the opportunity to study this phenomenon by eliminating from her research children under the age of two, citing as her rationale an earlier study which had shown that 74% of the speech of 18-month-old children was "incomprehensible" [Day 1932].

Scheinfeld's 1967 popular account of twin studies holds a breath of fresh air when he remarks that

> the special "twin language" may not be entirely a hindrance. The purpose of any language is communication, and it is possible that by using their own made-up words...many twins begin developing this art...sooner than do many singletons. No one...has divided twins into two groups--those who used "twin language" and those who did not--and checked to see whether the first group continued to be academically retarded in any way. [Scheinfeld 1967].

He gives the example of Elmer and Philip Schaefer of Illinois, top winners of the 1958 National Merit Scholarship. Scheinfeld alleges that these twins had two of the highest I. Q.'s ever recorded, had been born prematurely, and "for several years in early childhood had used their own twin language" [Scheinfeld 1967]; but he gives no source for this information, which proved otherwise

undocumentable. A brief piece regarding the Schaeffer twins appeared in a popular magazine just before they began graduate work at the age of 19; but except to state that "the boys taught themselves to read at three" [Anon. 1961], the article gives no information regarding their early linguistic abilities.

The circumstances under which idioglossia may develop is thusfar a matter of scholarly speculation, but somewhat more is known of its frequency. Howard's 1946 study of triplets reported that 42% of the parents in her study had observed "secret language." An article in a recent popular magazine cites an unidentified British study to the effect that idioglossia has been found in 47 out of 100 twin sets [F. Davis 1978]; while Scheinfeld states that "only a minority of the mothers reporting ... said that their twins used this language, and that when they did, it was ... seldom [for] more than a year." [Scheinfeld 1967] A study contrasting language development among 200 four-year old twins with that of singletons mentions a frequency rate of 47%, with a "surprisingly high proportion" of occurance among fraternal male twins [Mittler 1970].

Observations

In my informal survey of seven sets of twins, idioglossia was found in six sets. In addition, I encountered one set of singleton siblings who had developed their own language. Please see Chart I for particulars.

The singleton Thornton children, whose idioglossia was of the shortest duration, ceased using it when they were placed in a nursery school. Prior to that they had been geographically and socially isolated from people other than their parents. Also with the exception of the Thornton case, the age of onset of idioglossia in my small survey corresponds with Howard's observation that it was "comparable to the age at which other children began to talk" [Howard 1946]. The Thornton children differed, too, in that they are not twins and that the

CHART I

RESULTS OF INFORMAL SURVEY

NAME	TYPE/SEX	PRESENT AGE	SIBLINGS	LANGUAGES IN HOME	NATURE OF IDIOGLOSSIA	DURATION OF IDIOGLOSSIA	USED WITH OTHERS?	AGE BEGAN ENGLISH	INFORMANT
Antos	monozyg. female	15	nine: 1-18 years older	English	none	--	--	12-14 mo.	oldest sibling
Hempt	monozyg. male Down's syndrome	10	one: 2 years	English	single words, gestures, and "thought transference"	age 1 year to present	no	1 word at 15 mo; began sign language at 9 years	mother
Hildalgo	monozyg. male	3	none (one slightly older child in household briefly	English	2-3 word sentences; seemed to combine English verbs with own nouns	age 6 mo. to 2 years	mother	2 years	mother
Koth	dizyg. female	35	one; 16 mo. younger	English	lengthy sentences	age 1-2 years	parents came to understand	2 years	father, via one twin
Krohn	dizyg. female	34	one: 5 years	English	lengthy sentences	unknown but prior to use of English	no	2 years	mother, via one twin
Maiten	dizyg. female	3	one: 4 years older	English (very slight exposure to Spanish	lengthy sentences; occasional use of 1-2 English words in sentence	age 1 year to 2.5 years	mother	one word at 15 mo.; "paragraphs" by 2.75 years	mother
Thornton	singletons 1 male, 1 female 13 months apart	male 8; female 7	no others	English	2-3 word sentences	17/30 months to 23/36 months	no, but mother came to understand	both at 2 years; boy using 2-3 word sentences at onset of idioglossia	mother

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older child had already learned some English when he began teaching a private language to his younger sister.

All parents stated that they made efforts to wean their children from idioglossia (or, in the Antos case, to prevent it) by insisting that "baby-talk" never be used around the children. The mother of the Antos twins had been aware of the phenomenon of idioglossia prior to her twins' birth and credited the fact that there were many siblings, some of adult age, in the home for her twins' failure to develop a private language.

In the Hildalgo case, their mother speculates that their present "sloppy" use of English at age three years was caused because their use of idioglossia precluded the need for English. Elsenson [1963] had similar impressions, without, however, empirical testing. By contrast, Mittler's 1970 study, reached the conclusion that idioglossia has no influence on later language ability.

The recent discovery in San Diego, California, of twin girls who persisted in using idioglossia to the near exclusion of other languages for several years will surely advance knowledge of twin speech greatly. Work with the Kennedy children, now approaching adolescence, still continues at the Speech, Hearing and Neurosensory Center of the Children's Hospital and Health Center in San Diego; and thusfar has been reported only in the popular press [Anon. 1979, F. Davis 1978, Horowitz 1978, O'Brien 1978].

The particular circumstances of the Kennedy twins, who appear to be monozygotic, deserve a brief retelling. During their first months of life, the twins both suffered repeated unexplained convulsions and seizures. Although electroencephal-ograms failed to show brain damage, the Kennedys were told that only time would show if their twins has been left retarded. For this reason, the parents did not encourage their children to speak, nor were they surprised when the twins did not utter recognizable English words until they were 17

months old, about five months later than the average child. Another element which their mother credited for the delay is the fact that two languages, English and German, are spoken in the home [Anon. 1979, F. Davis 1978, Horowitz 1978, O'Brien 1978]. The children do not appear to be retarded and quickly learned the sign language of the deaf.

Hale [1887] also speculated that exposure to more than one language might cause twins to become confused and to develop their own communication system in self defense. In vain he attempted to trace specific instances of idioglossia as stimulated by such circumstances as a parent's foreign accent or an occasional visitor who used a language other than that spoken in the home. However, it has since been established that children can easily learn several languages simultaneously prior to lateralization at about age six years; and hypotheses about dual language exposure causing idioglossia must be laid to rest. As can be seen from Chart I, exposure to more than one language occured in only a minority of cases.

Although work with the Kennedy twins will not be completed for many years, therapists feel that their language is a combination of English, German, and idioglossia.

> Researchers who have been working on deciphering this communication feel very strongly that it is not an invented language, but a severely distorted form of English, or rather that it has its basis in English with some German characteristics to it. But...their syntax...is unlike German or English. Still, there are the truly invented words no one understands. [Anon. 1979 Horowitz 1978]

Conclusion

The opportunity to study the Kennedy children, who have used idioglossia longer than any other publicly known case, is exciting to linguists. At

this point one may only speculate, but the frequency of private language invention may provide support for Chomsky's theory about the innateness of language. The revelation that the Kennedy girls have invented 30 different words for "potato" certainly needs investigation in light of the Sapir-Whorf hypothesis: Does this multiplicity of terms reflect the environment and/or values of their home? The literature of idioglossia is scanty, largely anecdotal, and implies rare pathology. All the mothers with whom I spoke were aware that the development of idioglossia is common in twins and were not disturbed by its occurance in their children. The gap between the folk knowledge of this situation and the scholarly research is amazing. Much work is desperately needed.

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